JOINT SEMINAR
Big Data Institute & Department of Computer Science and Engineering, HKUST

Data-Intensive Paradigms for Vehicle Routing

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Date : 9 April 2018 (Monday)

Time : 16:00 - 17:00

Venue : Leung Yat Sing Lecture Theater (LT-F), HKUST

ALL ARE WELCOME!

Abstract

As the society-wide digitalization unfolds, important societal processes are being captured at an unprecedented level of detail, in turn enabling us to better understand and improve those processes. Vehicular transportation is one such process, where the availability of vehicle trajectories holds the potential to enable better routing. In particular, the increasing availability of trajectory data renders the traditional routing paradigm, where a road network is modeled as a graph and weights are assigned to edges, obsolete. Instead, new and data-intensive paradigms that thrive on trajectory data are called for. The talk will cover several such paradigms, focusing on so-called cost-oblivious routing, where no cost or costs are associated with routes, but where historical trajectories are used "directly" for routing. Even massive trajectory collections are sparse in this setting, and a key challenge is to transfer trajectories to uncovered source-destination pairs so that routing can be done for any such pair.

About the speaker

Christian S. Jensen is Obel Professor of Computer Science at Aalborg University, Denmark, and he was recently with Aarhus University for three years and spent a one-year sabbatical at Google Inc., Mountain View. His research concerns data management and data-intensive systems, and its focus is on temporal and spatio-temporal data management. Christian is an ACM and an IEEE Fellow, and he is a member of Academia Europaea, the Royal Danish Academy of Sciences and Letters, and the Danish Academy of Technical Sciences. He has received several national and international awards for his research. He is Editor-in-Chief of ACM Transactions on Database Systems.

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